

Amendment Dated August 15, 2007
Serial No. 10/688,642

REMARKS

Reconsideration of the rejection of the claims in this application is respectfully requested. By this Amendment, new claim 19 has been submitted. Currently, claims 1-19 are pending in this application. The indication that claims 4 and 17 contain allowable subject matter is noted with appreciation.

Interview

Examiner Singh is thanked for the courtesies extended during the interview on August 9, 2007. During the interview, the Ahmadi et al reference (U.S. Patent Publication No. 2002/0105942) was discussed, and differences between Ahmadi and the claims of this application were discussed. Specifically, applicants pointed out to the Examiner that one key differentiating factor between what is claimed in this application and what is shown in Ahmadi is the fact that Ahmadi uses a first set of four single notch filters to detect DTMF row frequencies, and a second set of four single notch filters to detect DTMF column frequencies. The single notch filters thus detect the row and column DTMF frequencies independently. (See, e.g., Ahmadi at Par. 33, lines 6-8: "Each filter array comprises four filters, each [filter] tuned to a respective row or column frequency.").

Applicants explained that independent claim 1, by contrast, recites a method of detecting DTMF signals that includes the step of filtering using notch filters, in which each notch filter has a pair of notches at DTMF frequencies. Similarly, independent claim 12 recites a DTMF detector for detecting DTMF signals, comprising a plurality of notch filters each having a pair of notches at DTMF frequencies. (emphasis added) Essentially, Ahmadi uses 8 single notch filters to individually detect row and column DTMF frequencies, and the combination of the outputs of the filters are used to determine which combination of DTMF frequencies are present and, hence, which keypad key was pressed. The claims, by contrast, recite the use of dual notch filters so that the output of one filter is able to detect which key generated the pair DTMF frequencies matching the notches in the filter. Accordingly, Ahmadi does not anticipate the independent claims of this application.

During the interview, applicants noted to the Examiner that the figures that were published in the Ahmadi reference were difficult to see, and noted to the Examiner that new

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formal figures had been filed in that application. Per Applicants suggestion and per the Examiner's request, a copy of the formal figures that were filed in that application are attached hereto as Exhibit A. As is clear from these figures, for example Fig. 5, Ahmadi uses four single notch filters to implement row DTMF signal filters (each of which produces one of the four row error signals). Similarly, Ahmadi uses four single notch filters to implement column DTMF signal filters (each of which produces one of the four column error signals).

Rejection of claims under 35 USC 102

Claims 1-3, 5-10, 12, add 14-17 were rejected under USC 102 as anticipated by Ahmadi et al (U.S. Patent Publication No. 2002/0105942). In view of the explanation set forth above, and in view of the explanation provided to the Examiner during the Interview, applicants respectfully submit that Ahmadi does not anticipate the independent claims of this application. Specifically, Ahmadi does not teach or suggest the use of notch filters with pairs of notches at DTMF frequencies. Accordingly, the Examiner is respectfully requested to withdraw this rejection.

New claim 19

Applicants submit herewith new independent claim 19 which recites a method that includes the step of filtering the packetized linear voice signal through a plurality of notch filters, each of said notch filters having a transfer characteristic that features two notches corresponding to a pair of DTMF frequencies generated by a particular key in a telephone keypad, and each of said notch filters producing a filtered signal. This claim is supported in the specification as originally filed, for example at paragraph 20. Ahmadi does not teach or suggest filtering using a dual notch filter which has two notches corresponding to a pair of DTMF frequencies. Accordingly, this new claim is allowable over Ahmadi.

Double Patenting Rejection from Office Action dated November 30, 2006

In the Office Action dated November 30, 2006, a double-patenting rejection was promulgated in which the Examiner provisionally rejected claims 1, 3, and 12 on the ground of non-statutory obviousness-type double patenting, as being unpatentable over claims 20-25 of Ahmadi. In response, applicants traversed the obviousness-type double-patenting rejection by

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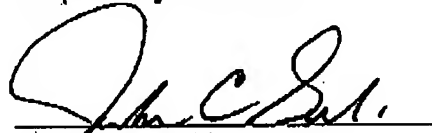
arguing that these claims of Ahmadi don't teach or suggest filtering a packetized voice signal to produce a DTMF tone. (See response dated January 30, 2007 in the paragraph bridging pages 1-2). Applicants have reviewed the Ahmadi reference and would like to recant that distinction. After further review of the Ahmadi reference, it appears that the claims that were applied in the double-patenting rejection (claims 20-25) were in fact broad enough to cover the situation where the input signal was a packet-based voice signal. The Examiner is thus requested to reinstate the obviousness-type double patenting rejection in a subsequent Office Action. Applicants will submit a terminal disclaimer to overcome the provisional double-patenting rejection in the event that the claims of this application are found to be allowable over the prior art.

Conclusion

If the Examiner believes a telephone interview would further prosecution of this application, the Examiner is respectfully requested to contact the undersigned at the number indicated below.

If any fees are due in connection with this filing, the Commissioner is hereby authorized to charge payment of the fees associated with this communication or credit any overpayment to Deposit Account No. 502246 (Ref: NN-16064).

Respectfully Submitted


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Dated: August 15, 2007

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EXHIBIT A TO AMENDMENT – FORMAL FIGURES THAT WERE SUBMITTED IN
AHMADI, ET AL., U.S. PATENT APPLICATION NO. 09/776,620